

GAO

August 1996

STATISTICAL AGENCIES

A Comparison of the U.S. and Canadian Statistical Systems



DISTRIBUTION STATEMENT A

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General Government Division

B-261870

August 1, 1996

Statistical Agencies A Comparison
U.S. and Canadian Statistical
Systems

The Honorable John Kasich
Chairman, Committee on the Budget
House of Representatives

The Honorable Stephen Horn
Chairman, Subcommittee on Government Management,
Information and Technology
Committee on Government Reform and Oversight
House of Representatives

Congressional consideration of proposals to consolidate some or all of the agencies comprising the federal statistical system has drawn attention to the centralized Canadian statistical system. This report responds to your request for information on the Canadian statistical system and Statistics Canada, that nation's statistical agency, for comparison with the U.S. statistical system. Our objective was to identify differences between the U.S. and Canadian statistical systems in

- their organizational and budget structures;
- their legal frameworks that govern privacy concerns, data confidentiality, and the ability to share data; and
- the position and authority of the Chief Statisticians of the United States and Canada.

Results in Brief

The federal statistical systems in the United States and Canada are based on different organizational approaches. The U.S. statistical system is highly decentralized, with statistical activities in approximately 70 agencies—11 of which have the collection, analysis, and production of statistics as their primary missions. While oversight and coordination of the U.S. statistical system is the responsibility of the Office of Management and Budget (OMB), each agency in the system has its own separate budget.

In contrast to the U.S. statistical system, the Canadian statistical system is highly centralized. Statistics Canada produces and disseminates virtually all broadly used official government statistics and is responsible for providing statistical services to support all the departments of the Canadian federal government. In some cases, these statistics are based on data collected by other Canadian departments and agencies. Statistics Canada also provides statistical support to provincial governments, either

directly or via a designated provincial organization. Statistics Canada has a single budget.

The legal frameworks for the U.S. and Canadian statistical systems are also different. In the United States, statistical agencies generally operate under a number of laws, policies, or regulations governing the collection, use, and confidentiality of the statistical information for which they are responsible. Some of these laws, policies, and regulations apply only to a specific agency. The legal framework for the U.S. statistical system also limits the extent of data sharing among agencies because statutes exist to protect the confidentiality of data providers and, in many instances, allow only the agency collecting the data to have access to them. Access by statistical agencies to data that the government has collected for regulatory or program administrative purposes is also limited. For example, statistical agencies' access to tax return data for statistical purposes is strictly limited by law.

In Canada, a single law, the Statistics Act of 1971, provides a mandate for Statistics Canada to be the central statistical agency. This law also provides Statistics Canada with the authority to access all government as well as private records for statistical purposes, enables it to share data among its different components under strictly controlled conditions, and requires the confidentiality and privacy of individual data providers to be protected.

In both the United States and Canada, a Chief Statistician has been designated to coordinate the statistical system. Each Chief Statistician occupies a position that is at the top of each nation's career civil service and operates under safeguards to protect independence from political interference. Although they share similar responsibilities for coordinating the statistical systems of their nations, there are differences between the two positions. In the United States, the Chief Statistician occupies a career Senior Executive Service position, is organizationally located in OMB, and reports to the Administrator of the Office of Information and Regulatory Affairs (OIRA). The U.S. Chief Statistician heads OIRA's Statistical Policy Branch, which, among other things, is charged with coordinating the federal statistical system but is not responsible for producing statistical information. The U.S. Chief Statistician also participates in OMB reviews of statistical agency budgets but cannot redirect staff and other resources from one statistical agency to another. In Canada, the Chief Statistician is

selected by the Prime Minister, has the rank of deputy minister,¹ heads Statistics Canada, and reports to the Minister of Industry. The Canadian Chief Statistician is charged with coordinating the Canadian statistical system at both the federal and provincial levels as well as producing statistical information. The Canadian Chief Statistician also is responsible for the budget of Statistics Canada and has authority to redirect resources within Statistics Canada.

Background

In the United States, the approximately 70 agencies that have funding of at least \$500,000 in a fiscal year for statistical activities are considered by OMB to be part of the federal statistical system. In fiscal year 1995, 72 agencies met this criterion. For many years, proposals have been made to consolidate various combinations of these agencies into a single statistical agency or strengthen the coordination of the decentralized system. For example, Janet Norwood, the former Commissioner of Labor Statistics, proposed centralizing three statistical agencies and the coordinating function from OMB into a single "superagency."² As a means of improving the coordination of the decentralized system, proposals also have been made, as recently as June 1996, to allow greater data sharing among federal statistical agencies to enable agencies to use the same data and avoid duplicative data collection efforts.³ In advocating the consolidation of the U.S. statistical system, some commentators have pointed to the example of the centralized Canadian statistical system.

Several differences between the United States and Canada affect the work performed by the nations' statistical systems. The United States has a much larger population than Canada has. The United States' population is 264 million, and Canada's population is 29 million. Measured by respective gross domestic products, the U.S. economy, at over \$7 trillion, is also much larger than the Canadian economy, at \$611 billion (both amounts measured in U.S. dollars).

¹A deputy minister is roughly equivalent in rank to the undersecretary of a cabinet department in the United States.

²Janet Norwood, *Organizing to Count* (Washington, D.C.: The Urban Institute Press, 1995).

³The Economic Statistics Initiative in 1991 and the National Performance Review in 1993 recommended legislation to enable limited sharing of confidential information for statistical purposes. See *Economic Statistics: Status Report on the Initiative to Improve Economic Statistics* (GAO/GGD-95-98, July 7, 1995). OMB and the Department of the Treasury recently sent to Congress a pair of legislative proposals that would enable limited sharing of confidential information for statistical purposes among nine statistical agencies.

The U.S. economy is also substantially more complicated than the Canadian economy. An example of this is seen in the financial sectors of the two economies. Nearly 10,000 domestic banks operate in the United States. The Canadian banking and financial services systems are much more centralized, with six domestic banks. Financial markets in the United States are also more complex. New York and Chicago are major international financial centers. U.S. financial markets often pioneer the use of sophisticated financial instruments, such as derivatives, that make the value of trading particularly difficult to measure.

Canada's parliamentary government can provide a more unified source of direction to its departments and agencies, including Statistics Canada, than can the system of government in the United States. In the Canadian system of government, agencies are directed by members of the Cabinet, who are also members of the majority party in Parliament. As Canada's Chief Statistician noted, "significant issues are decided collectively by the cabinet [on] the basis of discussion papers setting out options." Statistics Canada must, under the Canadian Constitution, also respond to provincial governments' statistical needs; by policy, it seeks to meet the public information needs of the private sector. In the United States, the direction of statistical agencies is affected by the constitutional separation of the executive and legislative branches of the U.S. government and the dispersal of congressional authority among authorizing, appropriation, and oversight committees, which can provide multiple sources of program and budget decisions that affect the U.S. statistical system. Canada's Chief Statistician noted that Statistics Canada also receives guidance from multiple sources, including provincial governments and the private sector.

The two countries also differ in the relative amount of trust each country places in having one centralized entity control statistical information. As Janet Norwood pointed out in her book, statistical agencies in the United States were created over time as the need for different information arose, but little attention was given to coordinating or integrating the resulting system. Dr. Norwood further commented that "the history of official statistics in the United States has clearly been affected by the country's opposition to centralized power in the hands of the federal government."⁴ For example, the Bureau of the Census has studied the declining response rate to its surveys and found that one reason individuals fail to return census surveys is the popular misperception that Census will share the information it collects on individuals with U.S. regulatory agencies. One consequence of this "opposition to centralized power" has been multiple

⁴Organizing to Count, p. 54.

confidentiality provisions that limit data sharing. Canada, however, has a single Statistics Act that provides "blanket access" for a single agency, Statistics Canada, to all government records.

Scope and Methodology

To accomplish our objective, we reviewed the literature on (1) the U.S. statistical system, including studies that discussed consolidating it, and (2) the Canadian statistical system, including documents prepared by Statistics Canada, such as its Policy Manual. We interviewed the U.S. Chief Statistician and other officials at OMB, executives at the 11 principal agencies in the U.S. statistical system,⁵ and cognizant experts in academia and the private sector. We also interviewed the Chief Statistician of Canada, key executives of Statistics Canada, and Canadian federal government officials who are users of Statistics Canada's services. It is important to note that this report is not an evaluation of the effectiveness of Statistics Canada, the Canadian statistical system, or the U.S. federal statistical system. Therefore, we did not seek to interview a representative sample of data providers or users. We conducted our interviews with Canadian officials and data users to understand the Canadian statistical system rather than to evaluate Statistics Canada. Staff from Canada's Office of the Auditor General participated in many of the interviews with Canadian officials.

We did not verify information from Statistics Canada on the extent to which it produces official statistics or the extent to which other Canadian federal agencies do. Our description of Canadian laws was based on the interpretations of Canadian government officials and our review of selected portions of these laws.

Throughout this report, we refer to statistical data as data that agencies collect to develop an aggregate description of a group of persons or businesses. We refer to administrative records as those records produced in the normal course of an agency's business that relate to a course of action that affects a particular person or business, such as an income tax filing, a criminal investigative report, or a license application.

⁵These agencies are the National Agricultural Statistics Service and the Economic Research Service, Department of Agriculture; the Bureau of the Census and the Bureau of Economic Analysis, Department of Commerce; the National Center for Education Statistics, Department of Education; the Energy Information Administration, Department of Energy; the National Center for Health Statistics, Department of Health and Human Services; the Bureau of Justice Statistics, Department of Justice; the Bureau of Labor Statistics, Department of Labor; the Bureau of Transportation Statistics, Department of Transportation; and the Statistics of Income Division of the Internal Revenue Service, Department of the Treasury.

We did our work between July 1995 and March 1996 in Washington, D.C., and in Canada, in Ottawa, Ontario; Hull, Quebec; and Montreal, Quebec, in accordance with generally accepted government auditing standards

We sent a draft of this report to the Canadian Chief Statistician and to the Director of OMB for comment. Their comments are discussed at the end of this report.

Differences in the U.S. and Canadian Statistical Systems

The federal statistical systems in the United States and Canada are based on different organizational and budget structures. The U.S. statistical system is highly decentralized, while the Canadian system is centralized. Due to the decentralized nature of the U.S. statistical system, each U.S. statistical agency receives current year appropriations, either as a specific line item in the budget or through allocations from its parent organization's budget. Canada, however, has a single budget for Statistics Canada.

Differences in Organizational Structures Affect How Each Country Carries Out Statistical Activities

In the United States, responsibility for producing federal social and economic statistics is divided among approximately 70 agencies. Eleven agencies, located in 9 departments, have statistical activities (collecting, analyzing, producing, and disseminating statistical data) as their primary missions.⁶ According to OMB, about 60 other agencies also spend at least \$500,000 annually on statistical activities. In general, these activities are undertaken to provide information for program oversight, regulation, or administrative purposes in direct support of the primary functions of the departments or agencies in which they are located.

U.S. federal statistical agencies often cooperate with each other in collecting and using data. For example, estimates of the National Income and Product Accounts,⁷ which are produced by the Bureau of Economic Analysis (BEA), are based on data generated by other agencies. Also, because Census has a comparative advantage in conducting household surveys, the Bureau of Labor Statistics (BLS) relies on Census to conduct the Consumer Expenditure Survey—a key component in BLS' program to update the market basket that it uses in determining the Consumer Price

⁶The missions of the 11 principal statistical agencies are described in Federal Statistics: Principal Statistical Agencies' Missions and Funding (GAO/GGD-96-107, July 1, 1996).

⁷The National Income and Product Accounts provide estimates of the level of output produced by the economy, such as the estimate of gross domestic product, or of income in the economy, such as personal income estimates.

Index—as well as the Current Population Survey—the source of monthly data on employment and unemployment. BLS reimburses Census for conducting these surveys. Similar cooperative endeavors are carried out by various agencies in the federal statistical system. Statistical agencies also rely on some administrative records to produce statistics. Census, for example, compiles international trade statistics on the basis of trade documents collected by the U.S. Customs Service. The result of agencies using data collected or generated by other agencies is a federal statistical system that is highly interrelated yet decentralized, so there is a need to coordinate the system's activities.

Some data used by the agencies in the U.S. statistical system also come from state and local government records. For example, quarterly estimates of employment and wages produced by BLS are gathered from unemployment insurance reports compiled by state employment security agencies. Most of the principal federal statistical agencies have their own cooperative agreements with state and local governments for obtaining and disseminating statistical data on particular topics, such as agriculture, health, and education. There is no single process or protocol for data sharing between federal and state governments.

Congressional recognition of the need for strong oversight and coordination of the decentralized federal statistical system extends back at least as far as the Budget and Accounting Procedures Act of 1950. The Paperwork Reduction Act of 1980, as amended in 1986 and amended and recodified in 1995,⁸ assigns to the Director of OMB and the Administrator of OIRA the responsibility for overseeing the federal statistical system and coordinating its activities. The Paperwork Reduction Act also created in law the position of Chief Statistician and directed that the person appointed to that position be “a trained and experienced professional statistician.”

Thus, the U.S. statistical system has a highly decentralized structure, with OMB's role being to coordinate the system's activities rather than to directly manage them. Many statistical activities conducted by the agencies in the system are outgrowths of the activities related to the missions of their parent departments, and the system's decentralization reflects those activities. Various commissions have reviewed the federal statistical system and subsequently urged greater coordination but generally have not recommended statistical agency consolidation.

⁸P.L. 104-13, 44 U.S.C. 3501-3520.

U.S. statistical agency officials cited advantages to having separate statistical agencies that are governed by their own statutes. For example, OIRA's Administrator has testified that "[O]ne of the particular advantages of our current organizational structure is that it places statistical agencies within the cabinet departments with related responsibilities. This means, for example, that those who are collecting agricultural, energy, or health statistics know what the issues are in their particular area and where statistics are needed."⁹

OMB officials told us that although the U.S. statistical system is decentralized, it has been able to achieve at least some of the efficiencies associated with a centralized system such as Canada's. For example, they noted that the U.S. has "centralized" much of the collection of data from households through the use of reimbursable agreements between Census and other federal agencies. Through the use of these agreements, Census collects data for agencies that they would otherwise have to collect themselves; the agencies reimburse Census for this work. As another example, OMB officials said that the recently established White House "home page" on the Internet can provide users immediate access to some statistical data produced by several agencies and easy access to other data, thus establishing a vehicle for "one stop shopping" for its users.

In contrast to the U.S. statistical system, the Canadian statistical system is centralized. A single agency, Statistics Canada, describes itself as "the core of Canada's socio-economic information system." Statistics Canada's legislative mandate is "to collect, compile, analyze and publish statistical information on the economic, social, and general conditions of the country and its citizens."¹⁰ According to Statistics Canada, it

"presents a comprehensive picture of the national economy through statistics on manufacturing, agriculture, exports and imports, retail sales, prices, productivity changes, trade, transportation, employment and unemployment, and aggregate measures, such as gross domestic product. It also presents a comprehensive picture of social conditions through statistics on demography, health, education, justice, culture, and household incomes and expenditures. This economic and social information is produced at the national and provincial levels and, in some cases, for major population centres and other sub-provincial or 'small' areas."¹¹

⁹Hearings on H.R. 2521 Before the Subcommittee on Government Management, Information and Technology of the House Committee on Government Reform and Oversight 104th Cong., 2nd Sess. (1996) (Statement of Sally Katzen, Administrator, OIRA).

¹⁰Statistics Canada: 1996-97 Estimates-Expenditure Plan Part III (Ottawa, Canada; 1996), p. 15.

¹¹Statistics Canada: 1996-97 Estimates-Expenditure Plan Part III, p. 13.

By having broad access to government records, Statistics Canada can use, for statistical purposes, data that are collected by other government agencies in fulfilling their missions. Statistics Canada produces statistical information based on such data, if the information is of broad interest. Statistics Canada also conducts surveys for other government agencies and funds these surveys by recovering its costs from the agencies that requested them. The Chief Statistician noted that when agencies request Statistics Canada to conduct such surveys, the agencies must be prepared for public dissemination of the results.

According to the Canadian Chief Statistician, Statistics Canada is well prepared to address the statistical needs of other government agencies, including those that do not fit neatly within the jurisdiction of a single department or agency. In addition, with respect to meeting the requirements of policy departments, the Chief Statistician emphasized "the effectiveness of two primary approaches: intensive bilateral working relationships between Statistics Canada and major policy departments; and a strong capacity to carry out cost recovered surveys to meet the priority statistical needs of departments if they cannot be accommodated with the budget of Statistics Canada."

The Chief Statistician also noted what he considered the main advantages of Canada's centralized statistical system:

"a high level of efficiency, achieved by avoiding the duplication of expensive infrastructure; flexibility to reallocate resources according to system-wide requirements; a high level of conceptual coordination and harmonization that ensures that the different parts and aspects of the economy are measured without gaps and overlaps; respondent benefits, by ensuring the lowest possible level of reporting burden through an intensive internal sharing and exploitation of all data that are collected; and, last but not least, a high level of client convenience through 'one stop shopping.'"

Structure of Statistics Canada

Statistics Canada is headed by the Chief Statistician of Canada, who reports to the Minister of Industry,¹² and is organized by activities or fields. There are six fields, each of which is headed by an assistant chief statistician (ACS). Three of these fields produce statistical information, while the other three support this production. Among the three production fields is the Social, Institutions, and Labor Statistics field, whose responsibilities include the census of the population, household surveys, demographic estimates, and income statistics. The functions of this field

¹²A minister in the Canadian parliamentary government has executive responsibilities similar to a cabinet secretary in the U.S. government, although ministers are also members of Parliament.

are similar to the demographic activities of the Census and the labor market activities of BLS. The Business and Trade Statistics field of Statistics Canada compiles statistics on the production of Canada's manufacturing and service industries. The field also produces statistics on Canada's trade with other countries. The field is roughly equivalent to the section of the Census responsible for economic and merchandise trade statistics. Similar to how Census in the United States relies on the U.S. Customs Service for trade data, the field relies on customs data reported by Canada Customs. The responsibilities of the National Accounts and Analytical Studies field of Statistics Canada are similar to those of BEA in that it compiles information on the economic performance of Canada and produces such key statistics as the gross domestic product estimate.

The fields in Statistics Canada are divided into branches that are responsible for several related statistical programs. For example, within the Business and Trade Statistics field there are two branches: Industry, Trade, and Price Statistics and Resources, Technology, and Services Statistics. Within branches are divisions, which are responsible for specific statistical programs. For example, the Resources, Technology, and Services Statistics branch has five divisions: (1) Services, Science, and Technology; (2) Industrial Organization and Finance; (3) Agriculture; (4) Investment and Capital Stock; and (5) Small Business and Special Surveys.

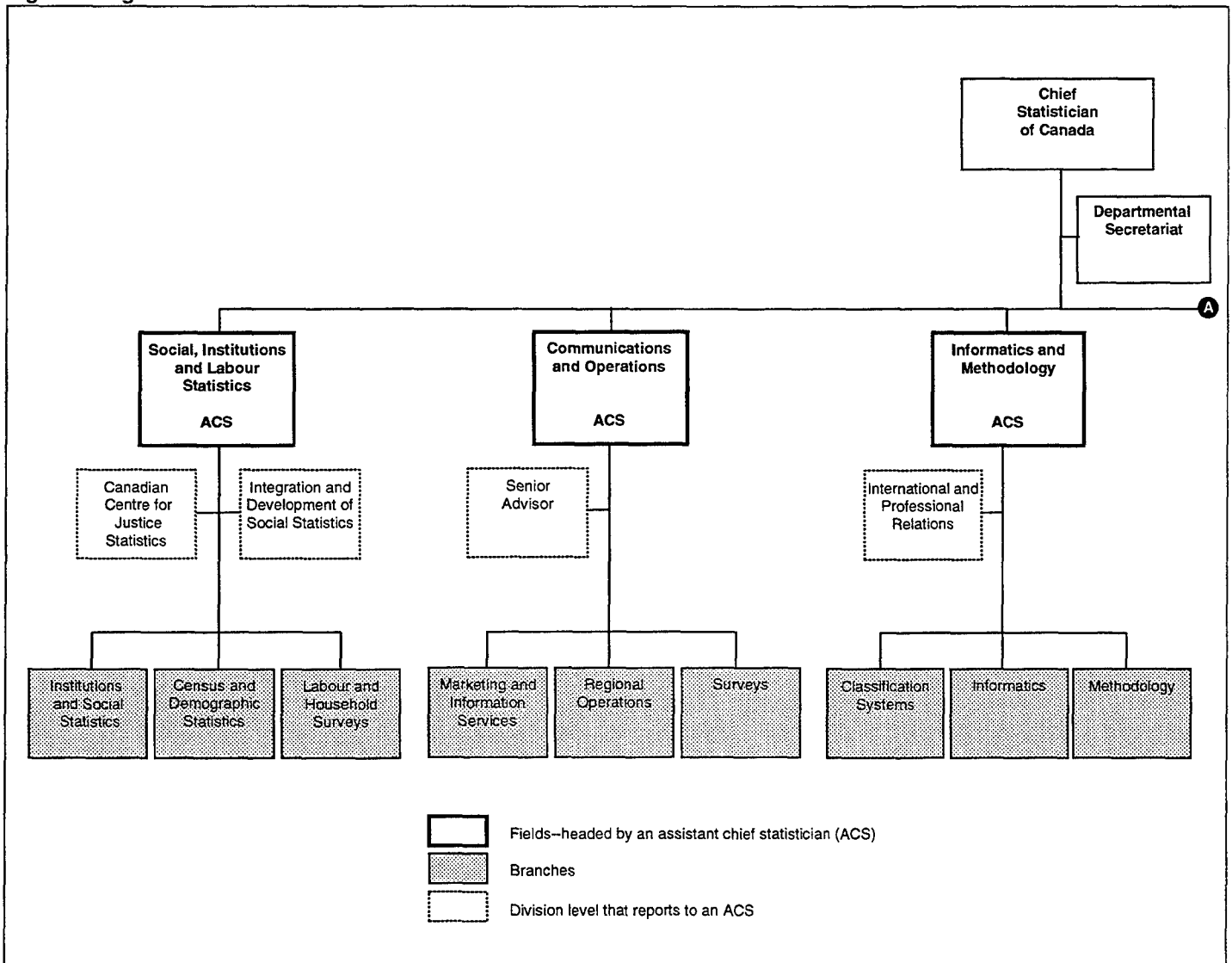
According to Statistics Canada officials, they work closely with the other departments and agencies of the Canadian government that use statistics produced by Statistics Canada. Specific data collection or analytical tasks within Statistics Canada are often conducted by project teams that work closely with other Canadian government agencies. For instance, the Agriculture Division of Statistics Canada works closely with staff from Agriculture and Agri-Food Canada to assist them in specifying their data requirements.

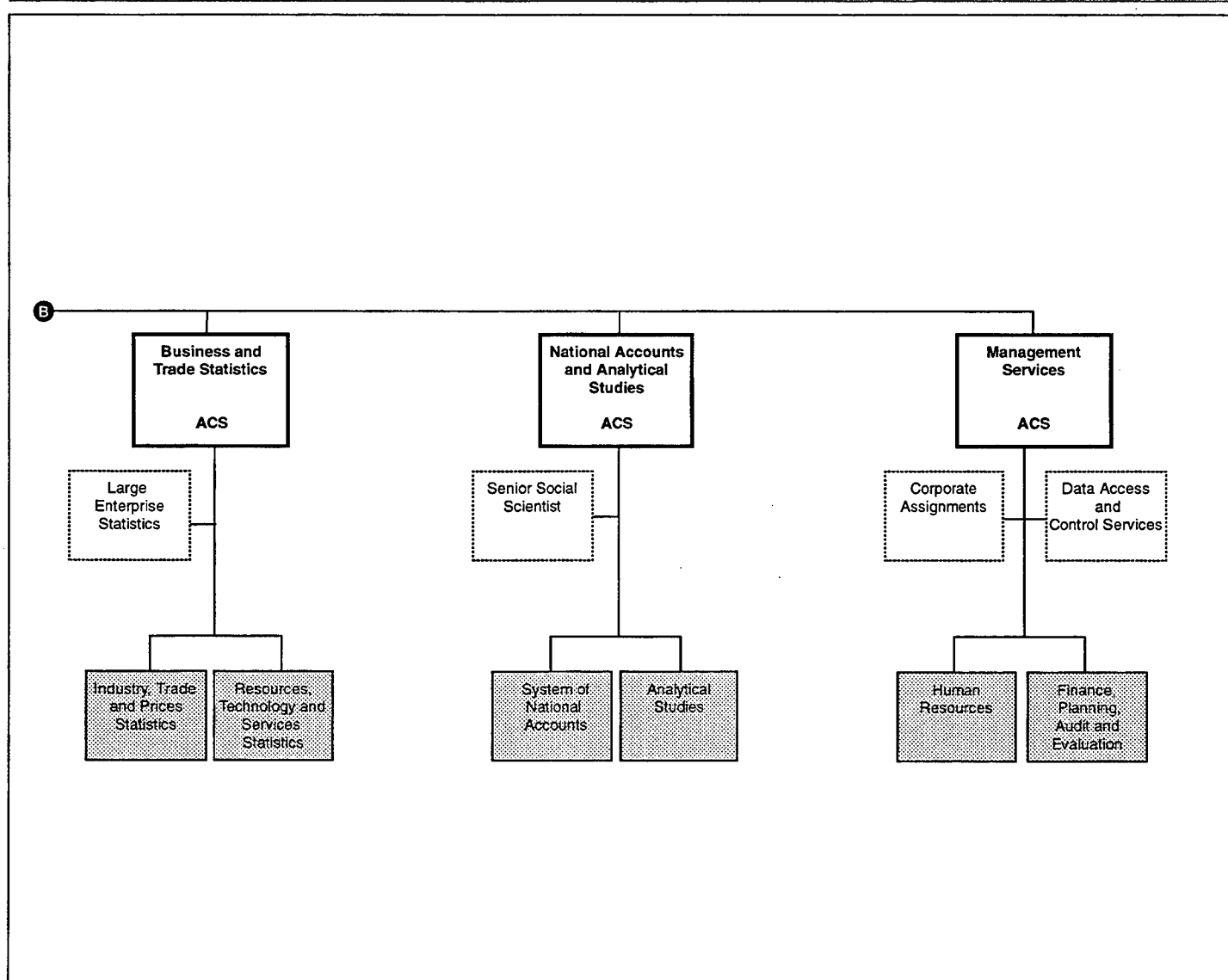
Statistics Canada also provides information on health care (e.g., data on hospital admissions and accident victims, characteristics of disabled and handicapped citizens, and a National Population Health Survey) and education (e.g., enrollment, graduates, personnel, programs, revenues and expenditures of Canadian educational institutions, and a National Longitudinal Survey of Children). In the United States, such programs would involve or be the responsibility of the National Center for Health Statistics in the Department of Health and Human Services and the National Center for Education Statistics in the Department of Education,

respectively. Similarly, Statistics Canada houses the Canadian Centre for Justice Statistics, which it describes as “the focal point of federal and provincial initiatives to provide national justice statistics and information.” In the United States, the Bureau of Justice Statistics in the Department of Justice has a comparable role. While noting that the mandate of Statistics Canada includes responsibilities that are assigned to several agencies in the United States, Canada’s Chief Statistician also said that this does not mean that the scope or coverage of the two nations’ statistical systems was identical.

The Informatics and Methodology field, the Communications and Operations field, and the Management Services field support the work of the statistical production fields within Statistics Canada. For example, the Informatics and Methodology field is to ensure that all surveys used in Statistics Canada are methodologically valid and statistically efficient. These functions parallel the OMB review and clearance process in the United States and statistical agency responsibilities for ensuring data quality. The Informatics and Methodology field also is to manage information processing for all of Statistics Canada. (Fig. 1 summarizes the organizational structure of Statistics Canada.)

Figure 1: Organization of Statistics Canada





Source: Statistics Canada.

Role of Other Canadian Government Agencies and Provincial Governments

Other departments and agencies also play a role in collecting data that Statistics Canada uses. Departments and agencies collect such data principally to be able to carry out their administrative or regulatory mandates, but Statistics Canada can use those data to produce broadly used statistical information. For example, Canada Customs collects merchandise trade data using documents that importers and exporters

must file, such as cargo control documents, commercial invoices, and import accounting coding forms. The Statistics Act authorizes Statistics Canada to have access to these records, which form the basis for statistical information on Canada's international trade. (This is analogous to how the U.S. Customs Service's data are used by Census in compiling trade data.)

Like U.S. federal statistical agencies, Statistics Canada also relies heavily on data from records maintained by provincial and local governments. In Canada, provinces have primary responsibility for administering education, health, and justice programs and supply their data to Statistics Canada, which in turn compiles statistics on such areas as criminal justice, medical care outcomes, and literacy. According to the Canadian Chief Statistician, the mandate of Statistics Canada includes meeting the needs of the provinces for statistical information. Each of the 10 Canadian provinces has a statistical office that works with Statistics Canada. In addition, Statistics Canada sponsors a Federal Provincial Consultative Council on Statistical Policy, which is the vehicle for coordinating policy on data exchanges between Statistics Canada and the provinces. Each province has a member on the council appointed by the province's premier.¹³ The council is chaired by the Chief Statistician. In addition to supplying data, the provinces are also heavy users of data produced by Statistics Canada, particularly data relating to provincial economic and social conditions.

Single Budget for Statistics Canada Allows Response to Changing Priorities Through Internal Reallocations

Statistics Canada has a single statistical budget of Can\$479 million (equivalent to U.S. \$349 million) for fiscal year 1996-1997 and is able to reallocate its resources internally when the need for information or the resources that are available for statistical activities change. Reallocations of resources within the U.S. statistical system may require moving resources among different agencies and departments, a considerably more difficult undertaking. OMB prepares an annual report that lists amounts agencies requested to fund statistical activities, but there is no consolidated budget for statistical activities in the United States that would be comparable to Statistics Canada's single budget. According to OMB, the total funding in fiscal year 1995 for all statistical activities was \$2.6 billion, including almost \$1.1 billion for the 11 principal statistical agencies.¹⁴ All 11 principal statistical agencies received at least some funding from congressional appropriations. These appropriations included

¹³A premier is the provincial equivalent of the Prime Minister.

¹⁴See GAO/GGD-96-107, July 1, 1996.

amounts listed as line items in the federal budget and amounts allocated from the agencies' parent departments.

OMB's Statistical Policy Branch is responsible for ensuring that the activities of statistical agencies are in line with federal statistical policy by such means as (1) coordinating agency budget requests, (2) issuing statistical standards, (3) coordinating interagency working groups on statistical issues, and (4) evaluating the performance of statistical programs. The branch, along with other parts of OIRA, is responsible for reviewing agencies' information collection requests. In many cases, such as revising the economic or industrial classification system used to define industries for reporting their production, OMB works through an interagency process, with working groups representing relevant agencies tasked to develop recommended approaches to resolve issues.

We and others have reported that coordinating the federal statistical system has been a long-standing issue. In 1980, a commission appointed by President Carter to study the reorganization of the federal statistical system reported that the statistical policy staff lacked the capacity to coordinate the system because of its small size. More recently, in our August 1995 report, we noted that many observers commented that the branch does not have a staff large enough to do an effective job of coordinating federal statistical policy.¹⁵ As of June 1996, the branch was authorized to have five full-time equivalent professional positions. In our 1995 report, we said that although the branch currently reviews budget submissions for the principal statistical agencies and participates in OMB's review of their parent departments' budgets, it often does not issue its report on the budget for all federal statistical activities until after Congress has started to determine agency budgets. We further noted that to adequately coordinate the systemwide activities of federal statistical agencies, the branch would need to closely review the budgets of smaller statistical agencies to identify such inefficiencies as duplication of effort and to help ensure that the limited federal funds for statistical activities are spent as effectively as possible.

According to Statistics Canada, its budget funds most government data collection for statistical purposes as well as activities to produce statistical information that is based on data collected from government administrative records. The majority of Statistics Canada's funding comes from its own appropriations from Parliament. Statistics Canada also relies

¹⁵Statistical Agencies: Adherence to Guidelines and Coordination of Budgets (GAO/GGD-95-65, Aug. 9, 1995), p. 3.

on costs that it recovers from agencies for which it does work. (This is similar to the practice of U.S. statistical agencies reimbursing other agencies, particularly Census, for collecting data.) Statistics Canada's budget has two components: appropriations for the Census of the Population and appropriations for the rest of its statistical programs.¹⁶

The Canadian Chief Statistician told us that having a single budget and the ability to reallocate resources provide Statistics Canada with considerable ability to coordinate the Canadian statistical system. In a recent paper, he noted that

"The purpose of coordination is to permit the components of the statistical system to act as a coherent system. Such coherence includes the ability to mobilize budgetary resources to meet broad priorities, to deploy people according to overall needs, to exploit possible synergies (e.g., creating new information through record linkage), to take advantage of possible efficiencies (e.g., using common tools, registers, field staffs), to ensure that the outputs of the system are coherent where they need to be, and to defend the system against political interference."¹⁷

The Canadian Chief Statistician said that having the ability to draw data together from a variety of sources, including linking or matching data on individuals in one statistical database with data on those same individuals in other databases to form a single composite record for statistical analysis, better positions Statistics Canada to be more responsive to new government needs than would be the case if it were not centralized. According to Statistics Canada's Policy Manual, record linkage using tax data "can replace some survey work by use of tax data, particularly for small businesses for whom survey reporting would otherwise be a heavy burden."¹⁸

Finally, Statistics Canada officials told us that their ability to avoid duplication of effort and to profit from "possible synergies," particularly those resulting from the linking of data across a variety of areas is essential to their ability to control costs. Statistics Canada's ability to

¹⁶There are three ways these noncensus programs are funded: (1) core programs are funded completely through appropriations that Statistics Canada allocates to these programs; (2) federal departments supplement the appropriations for some programs to make them statistically richer for their own purposes; and (3) federal departments pay the full costs for activities not normally performed by Statistics Canada, such as special surveys or improved sample sizes needed for more detailed analysis.

¹⁷I. Fellegi, "Characteristics of an Effective Statistical System," Morris Hansen Lecture presented before the Washington Statistical Society (Oct. 25, 1995).

¹⁸Statistics Canada, Policy Manual, Policy No. 4.1; May 7, 1986.

control costs may also entail redeploying staff to reflect changes in priorities and maintaining the essential operational and professional capacity for responding to client needs. According to Statistics Canada, through efforts such as linking data, it also has been able to reduce the burden that its efforts to collect data impose on business data providers.¹⁹

Differences in U.S. and Canadian Legal Frameworks Affect Ability to Share and Access Data

U.S. statistical activities are authorized by many different laws and regulations, rather than a single statute. Provisions of law designed to protect the confidentiality of individual data providers limit the extent of data sharing among the agencies in the federal statistical system. Although data sharing occurs among the statistical agencies, it occurs under arrangements that are specific to the agencies involved rather than under a single authorizing statute. The activities of the federal statistical system, including the data sharing that does occur, are to be coordinated under provisions of the Paperwork Reduction Act of 1980, as amended. Statistical agencies are also subject to the Privacy Act of 1974, as amended,²⁰ and the Freedom of Information Act of 1966, as amended.²¹

In Canada, a single law, the Statistics Act, provides the authority for all activities of Statistics Canada, including the coordination of those parts of the Canadian statistical system not included in Statistics Canada, and applies to all components of Statistics Canada. Under the Statistics Act, Statistics Canada has broad access to administrative records, the authority to use data from several sources to construct composite records, and the authority to share data among different components of Statistics Canada. The Statistics Act also provides for the protection of the confidentiality of individual data providers, as does Canada's Access to Information Act and Privacy Act.

The United States Has Many Statutes Governing Statistics, While Canada Has One

In the United States, each statistical agency was created to respond to particular needs. Census, for instance, can trace its history back to the Constitution, which requires a census of the population.²² One of the earliest tasks for BLS was to provide information on employment and unemployment. Its mission grew to include the preparation of information

¹⁹Statistics Canada measures the response burden on those providing data through survey responses by calculating an annual index, which is a composite of the estimated time to complete each business survey; the frequency of surveys; and the number of respondents.

²⁰5 U.S.C. 552a.

²¹5 U.S.C. 552.

²²This requirement is codified at 13 U.S.C. 141.

on prices in order to measure the rate of inflation. Other agencies were created to produce other data. As a result, there are now numerous statutes authorizing the activities of agencies that have statistics as their primary missions and numerous other statutes and programs that require the use of statistical data.²³

In many cases, statistical agencies operate under authority derived from the operating authority granted to their parent departments. No single law sets out the standards and requirements that are to govern federal statistical activities. However, OMB is empowered to establish statistical policy for the executive branch. The Committee on National Statistics of the National Academy of Sciences has also published guidelines that are intended to be "best practices" and consistent with current laws and statistical theory.²⁴

In addition, U.S. statistical agencies operate under governmentwide legislation affecting privacy and access to data. The Privacy Act provides protection for individuals with regard to individually identifiable records. The Privacy Act embodies privacy principles regarding disclosure, access, and due process for individually identifiable information. Both the Privacy Act and the Freedom of Information Act regulate the disclosure of documents or other records of federal agencies, including statistical records. The Freedom of Information Act generally permits public access to federal records, such as surveys, but provides for exceptions to such access when it would disclose data that could identify individuals. The Privacy Act restricts public access to information about individuals but makes exceptions for disclosure under specific circumstances. In addition to providing for coordination of the federal statistical system, the Paperwork Reduction Act is intended to reduce the burden on those responding to federal requests for data. This act, for instance, requires OMB to approve federal data collection instruments or other federal requests for data.

Statistics Canada has one statute that covers nearly all aspects of data collection, data dissemination, and statistical system organization. In 1918, the Canadian Parliament began the process of consolidating the country's statistical activities by passing the legislation that created the Dominion Bureau of Statistics. As a result of this legislation, statistical activities that

²³See *Statistical Agencies: Statutory Requirements Affecting Government Policies and Programs* (GAO/GGD-96-106, July 17, 1996).

²⁴*Principles and Practices for a Federal Statistical Agency* (Washington, D.C.: National Academy Press, 1992).

were in several government departments were transferred into the bureau. The Statistics Act of 1971 further consolidated Canadian statistical activities. The act changed the name of the Dominion Bureau of Statistics to Statistics Canada and gave it broad authority as the primary agency for the collection and dissemination of government statistics and the coordination of the statistical activities of other federal agencies as well as provincial agencies involved in these activities. The act applies uniformly to all components of Statistics Canada. Statistics Canada is also subject to Canada's Access to Information Act and Privacy Act. The latter intends, among other things, to protect the confidentiality of data on individuals.

Canadian officials cited several advantages to having virtually all statistical activities governed by one statute. First, the act gives Statistics Canada blanket access to all data that are collected by the government, including administrative records. According to the Canadian Chief Statistician, this access provides information that is of higher quality or that costs less to produce than would be the case without such authority. For example, Statistics Canada has access to tax records maintained by Revenue Canada (Canada's equivalent to the U.S. Internal Revenue Service) that Statistics Canada can use as a primary source of information or to supplement information it collects through surveys. According to Statistics Canada officials, this access has been a major reason that Statistics Canada has been able to reduce the reporting burden it imposes on Canadian businesses by a cumulative total of 66 percent between 1978 and 1995.

Second, the Canadian Chief Statistician also noted that the legal authority and responsibility to collect or supervise the collection of all official government data enables Statistics Canada to ensure data consistency. For example, Statistics Canada can collect data from businesses in a format that can be readily used for its periodic reports on business performance as well as for its National Accounts, which are used to produce the measure of gross domestic product.

Canada's Confidentiality Statutes Allow More Data Sharing Than Those of the United States

Confidentiality requirements limit the extent to which U.S. statistical agencies can share data among themselves or link together different administrative records. Some argue that these constraints are necessary to protect the privacy of data providers. Statistics Canada does not face such constraints because it is a single agency operating under a single law that governs confidentiality requirements, is granted access to any government administrative record, and is permitted to match records on individuals in

different databases for statistical purposes (i.e., link records). It does have strong provisions that are designed to ensure data confidentiality, however, and rigorous review and approval procedures governing records linkage.

In the decentralized U.S. statistical system, data sharing among statistical agencies does occur; however, it is constrained and sometimes precluded by confidentiality laws. In the United States, governmentwide laws and policies are intended to ensure the privacy of data providers. At least one confidentiality or disclosure provision (or, in the case of BLS, a Commissioner's Order) applies to each of the 11 principal statistical agencies, and most of these provisions strictly protect the confidentiality of data providers.²⁵ However, because most of the confidentiality provisions only apply to a single agency, the agency initially collecting data is often limited in what it can share with other agencies. For example, BLS must compile its own list of business establishments, thus duplicating to some degree what Census does, in part, because Census' confidentiality provisions do not permit BLS to have access to Census' Standard Statistical Establishment List. Also, because of these confidentiality provisions limiting access to Census' records, other statistical agencies at times had only limited access to data that the agencies had paid Census to collect if those data could identify data providers. For instance, BLS does not have full access to the Consumer Expenditure Survey data that it uses to update the Consumer Price Index, although it reimburses Census for conducting the survey. Since 1979, we have recommended changes to existing statutes that would enable statistical agencies to share data.²⁶

Over the past decade, OMB has sought legislative changes that would allow greater sharing of data and information on data sources among statistical agencies. On January 29, 1996, OMB published a Federal Register notice requesting comments on a draft administrative order that would establish a uniform policy for protecting confidential statistical information in any executive branch agency. That order, however, would not remove any limits imposed by law on data sharing arrangements. In April 1996, OMB sent to Congress proposed legislation that would establish policies and procedures intended to guarantee the consistent and uniform application of the confidentiality of data provided for statistical purposes. The legislation would also authorize limited sharing of data for statistical purposes among statistical agencies. In June 1996, the Department of the

²⁵GAO/GGD-96-106, July 17, 1996.

²⁶After Six Years, Legal Obstacles Continue to Restrict Government Use of the Standard Statistical Establishment List (GGD-79-17, May 25, 1979).

Treasury sent to Congress proposed complementary legislation that would permit limited sharing of tax information among designated statistical agencies for statistical purposes subject to procedural safeguards contained in the proposal.

Earlier reluctance to ease confidentiality provisions that would allow a greater sharing of data among agencies can be explained, in part, by the strong traditions in the United States for protecting the privacy of individuals. Restricting access to data that individuals and businesses supply to agencies is intended to provide some protection against the potential misuse of these data by the government whether these are demographic data collected by the Census or tax data obtained by the Internal Revenue Service.

Statistics Canada depends on data that are collected from administrative records and used by Canadian program departments as well as the provinces. In carrying out its responsibilities, Statistics Canada has access to all administrative records held by the Canadian government, including tax return data held by Revenue Canada. Statistics Canada also has the ability to match or link data on individuals from different administrative records and other data sources. Canada's Statistics Act allows the sharing of data from surveys with federal, provincial, and local governments. This sharing does not apply to administrative records that Statistics Canada uses to produce statistical information. According to the Chief Statistician, the Statistics Act "provides blanket access for Statistics Canada to all records held by the governments, and specifically identifies all taxation and customs records, as well as records of the courts." He said that in his view, this access makes it possible for Statistics Canada to obtain as good or better information than would otherwise be the case.

Canada's Statistics Act imposes confidentiality on data that could identify the providers of those data. These data providers must be advised when data are to be shared with another body and may object to such an arrangement. Canada's Privacy Act governs how and when personal information can be collected and how it can be used. In addition, the act includes provisions intended to ensure the protection of that information. As a matter of policy, Statistics Canada lists, in an annual report to Parliament on the implementation of the Privacy Act, the linkages that it carried out in a given year.

Similarities and Differences Exist in the Positions of the Chief Statisticians in the United States and Canada

In the United States and Canada, a Chief Statistician has been designated to lead the federal statistical system. In several aspects, the positions are similar. Both are tasked with coordinating the work of their statistical systems. Both hold positions that are at the top of each nation's career civil service. Both operate under safeguards intended to provide independence from political interference. However, there are also differences between the two positions. Canada's Chief Statistician, while a career civil servant, is a deputy minister selected by the Prime Minister. The U.S. Chief Statistician holds a career Senior Executive Service position, reporting to the Administrator of OIRA in OMB. Canada's Chief Statistician, as the head of Statistics Canada, is responsible for producing and disseminating most of the nation's official statistical information. The U.S. Chief Statistician heads OMB's Statistical Policy Branch and is responsible for coordinating the federal statistical system but does not have direct responsibility for producing or disseminating statistical information.

The Chief Statisticians Have Protection Against Political Interference

Both Chief Statisticians have noted that their positions are intended to provide independence from political influence. In the United States, the Chief Statistician is a career position, rather than a political appointment. In Canada, although the Chief Statistician is selected by and serves at the pleasure of the Prime Minister, the Chief Statistician has pointed to two factors tending to provide effective protection against political interference. One, he said, is a long-standing Canadian tradition that deputy ministers, including the Chief Statistician, retain their positions through changes in government. The other is that the Prime Minister's instructions to the Minister of Industry direct that the Minister maintain an arm's-length relationship to Statistics Canada. One example of the Chief Statistician's independence is that the Chief Statistician cannot be overruled by the Minister of Industry on issues of confidentiality. The Chief Statistician also noted that the Chief Statistician traditionally defends the budget for Statistics Canada before Parliament; the Chief Statistician noted that deputy ministers in most other departments will accompany the responsible minister rather than appear alone.²⁷

Approaches to the Coordination Role of the Chief Statisticians Differ

In both the United States and Canada, the Chief Statistician is charged with coordinating the federal statistical system. However, given differences in the designs of the two systems, the manner in which they

²⁷The U.S. Chief Statistician does not testify before Congress because of an OMB policy that reserves authorization to testify to officers confirmed by the Senate.

are to carry out their responsibilities differs. Under the Paperwork Reduction Act, the U.S. Chief Statistician is to coordinate statistical policy through such means as oversight of the agency budgets, issuance of policies and directives to the statistical agencies, and leadership of an interagency process. The Chief Statistician told us that coordination generally occurs through a collaborative process involving the statistical agencies, although OMB retains the authority to mandate actions to coordinate statistical agencies. The U.S. Chief Statistician does not have authority to direct a reallocation of staff or budgets for statistical activities. However, the Chief Statistician's position in OMB provides the opportunity to contribute to administration decisions on staff years or budgets of statistical agencies that are proposed in the President's budgets. A recent example is the proposal in the President's fiscal year 1997 budget to shift the responsibility for the Census of Agriculture from Census to the National Agricultural Statistics Service in the Department of Agriculture.

In practice, although the U.S. Chief Statistician has the legislative authority to coordinate statistical policy and statistical agency budgets, many observers have commented that the Chief Statistician has lacked the staff and resources to effectively exercise this authority. For instance, one expert on the U.S. statistical system recently noted that "since 1947, the real or inflation adjusted dollar budget for federal statistics has increased 19 times over while the number of professionals assigned to the Chief Statistician in OMB for statistical policy and coordination of the system fell from about 65 to 5."²⁸ Similarly, Janet Norwood noted that

"The workload involved in coordination and planning for the 10 statistical agencies alone—to say nothing about the statistical work done elsewhere in the government—is too large for the staff currently assigned to SP [the Statistical Policy Branch in OMB]. Of necessity, therefore, the statistical policy group has focused its attention only on program issues of major importance."²⁹

²⁸Hearing on H.R. 2521 Before the Subcommittee on Government Management, Information, and Technology of the House Committee on Government Reform and Oversight, 104th Cong., 2nd Sess. (1996) (Statement of James T. Bonnen, Professor, Michigan State University).

²⁹Organizing to Count, p. 54. In 1995, OMB identified 10 agencies as the principal statistical agencies. We added the Department of the Treasury's Statistics of Income Division in counting principal statistical agencies because its mission is also primarily statistical. OMB's Chief Statistician and principal statistical agency officials agreed with this classification. All 11 agencies are listed in footnote 5.

As we noted in our 1995 report, according to Statistical Policy Branch officials, the branch is sometimes required to adjust its priorities on the basis of such factors as new administration initiatives or staff shortages.³⁰

In Canada, the Chief Statistician's role is much different than it is in United States, due largely to the centralized structure of the Canadian system and the Chief Statistician's position and rank as a deputy minister. As head of Statistics Canada, the Chief Statistician has direct control over the agency's budget and personnel. Therefore, the Chief Statistician can make and implement resource allocation decisions and coordinate statistical activities. The Chief Statistician said that, in practice, he periodically meets with staff from Canadian agencies to discuss needs and priorities and that he bases his decisions on priorities for Statistics Canada largely on those discussions. According to Statistics Canada officials, the Chief Statistician's control over Canada's statistical budget and rank as a deputy minister provide considerable leverage in negotiations with agencies that either supply data to Statistics Canada or use the statistics produced by it.

Statistics Canada officials noted that the Chief Statistician's authority for coordinating statistical activities of other Canadian agencies is modest compared to the Chief Statistician's authority over Statistics Canada. They said that this reflects the small role played by agencies outside of Statistics Canada in producing or disseminating official statistical data.

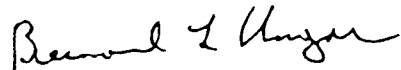
Agency Comments

We received written comments on this report from the Chief Statistician of Canada who agreed with its contents. On June 24, 1996, we met with the U.S. Chief Statistician in OMB who generally agreed with the report's contents and suggested various technical changes, which we incorporated into the report, as appropriate.

We are sending copies of this report to the Director of OMB, the U.S. Chief Statistician, the Canadian Chief Statistician, the Canadian Auditor General, and other interested parties. Copies will also be made available to others upon request.

³⁰GAO/GGD-95-65, August 9, 1995.

If you have any questions concerning this report, please call me on (202) 512-4232. Major contributors to this report are listed in the appendix.



Bernard L. Ungar
Associate Director, Federal Management
and Workforce Issues

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Figure 1: Organization of Statistics Canada

Abbreviations

ACS	Assistant Chief Statistician
BEA	Bureau of Economic Analysis
BLS	Bureau of Labor Statistics
OIRA	Office of Information and Regulatory Affairs
OMB	Office of Management and Budget

